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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,175	12/05/2001	Neal M. Bowen	M4065.0493/P493	2267

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EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT PAPER NUMBER

1725

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/002,175	BOWEN, NEAL M.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lynne Edmondson	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-46 and 48-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 10-41 is/are allowed.
- 6) ☒ Claim(s) 42-46 and 48-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 42-46 and 48-57 are rejected under 35 U.S.C. 102(a) as being anticipated by Koduri (USPN 6273321 B1).

Koduri teaches a wire bonding apparatus comprising a wire feeding device (capillary, 40) and a mechanism for moving and operating the device for forming multiple bonds (figure 1 and col 3 lines 1-23) via a controlled drive unit (52). The control unit comprises a computer and measuring means for positioning the capillary (col 5 lines 1-46 and col 13 line 49 – col 14 line 35) and is capable of forming bonds at an angle via translational, vertical and rotation movement (col 4 line 50 – col 5 line 3, col 6 lines 3-10 and lines 21-34). The device also comprises a controlled ball forming means (29) (col 5 line 47 – col 6 line 34). See also column Koduri claims 1-5.

3. Claims 42-46 and 48-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Bonham, Jr. (USPN 4445633).

Bonham teaches a wire bonding apparatus comprising a wire feeding device (capillary, 19) and a mechanism for moving and operating the device for forming

multiple bonds via a controlled drive unit. The control unit comprises a computer and measuring means for positioning the capillary (figure 1 and col 4 line 38 – col 5 line 22) and is capable of forming bonds at an angle (figures 3-5 and col 8 line 34-57). The device also comprises a controlled ball forming means (col 3 line 41 – col 4 line 11). See also column Bonham claims 1-7 and 11.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 42-46 and 48-57 have been considered but are moot in view of the new ground(s) of rejection.

### ***Allowable Subject Matter***

5. Claims 1-8, 9-13 and 18-41 are allowed.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yasuzato et al. (USPN 5060843, apparatus, capillary, drive, computer, program, capable of bonding at angles, ball forming means), Moon (USPN 6189765 B1, apparatus, capillary, drive, computer, program, measuring means, capable of bonding at angles, ball forming means), Kirshenboin et al. (USPN 4327860,

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apparatus, capillary, drive, computer, program, measuring means, capable of bonding at angles, ball forming means) and Toh et al. (USPN 6091140, apparatus, capillary, drive, computer, program, measuring means, capable of bonding at angles, ball forming means).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (571) 272-1172. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LRE

Lynne Edmondson  
Primary Examiner  
Art Unit 1725

LYNNE R. EDMONDSON  
PRIMARY EXAMINER

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2/14/04